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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/239,871	01/29/1999	DOMINIC P. CARROZZA	199.36691X00	6639

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ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

KUMAR, PANKAJ

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 10/01/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/239,871

Applicant(s)

CARROZZA ET AL.

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16,30,31,34 and 35 is/are allowed.
- 6) ☒ Claim(s) 17, 20-28 is/are rejected.
- 7) ☒ Claim(s) 18,19,29,32 and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/18/2003 have been fully considered but they are not persuasive.
2. As per applicant's argument on bottom of page 17, the input of data into elements 7 to 12 make it a receiver. The way all of the elements for claim 17 are anticipated by Williams is shown in the response to amendment section.
3. As per the argument of the modulator being a decoder, this has been reinterpreted. See response to amendment for more information.
4. As per the argument on the bottom of page 18, in a prior action, applicant had pointed to col. 15 lines 16-23 as purportedly teaching TDM. This was after the office pointed to claim 13 in Williams as teaching TDM. The office still maintains that claim 13 in Williams teaches TDM as claimed by the applicant.
5. As per the argument on page 19:
 - a. Here are the limitations argued as shown by Williams:
 - b. plurality of channels (Williams fig. 10: 32 bit inputs into 7 to 9 and/or 9 to 12; elements 7 to 12 are receiving and storing data) with each successive data sample (Williams fig. 10: LSB then output of 8 then MSB) belonging to a channel different from a channel to which an immediately preceding data sample belongs (Williams fig. 10: LSB, output of 8 and MSB are all from different shift register channels)
6. Arguments on the bottom of page 20 are mute since those claims have been allowed.
7. As per the arguments on page 22:

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c. As per the argument that data 1 is what has to be received by the receiver, this is not persuasive since the output of 26 being 32x8 in fig. 11 is representative of the input data 1 from fig. 10 since data 1 goes through various components in fig. 10 whose output goes into fig. 11 and through the various components, eventually gets fed into 26.

d. The office's position is that the output of 26, which at first is 32x8, is next divided into outputs of 32x7 and 32 in fig. 11 just after the output of 26 at the data division junction.

Response to Amendment

Claim Objections

8. Claims 24 and 25 objected to because of the following informalities: there is an extra space between the words 'time' and 'division'. Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Williams et al US pat no. 5,448,592.

11. As per claim 17. Williams teaches a method of data reception comprising: in a receiver receiving and storing a time division multiplexed signal (Williams claim 13) transmitted from a

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transmitter (when data is received by a receiver, it is inherent for there to exist a transmitter which transmits data) containing a sequence of data samples from a plurality of channels (Williams fig. 10: 32 bit inputs into 7 to 9 and/or 9 to 12; elements 7 to 12 are receiving and storing data) with each successive data sample (Williams fig. 10: LSB then output of 8 then MSB) belonging to a channel different from a channel to which an immediately preceding data sample belongs (Williams fig. 10: LSB, output of 8 and MSB are all from different shift register channels); outputting the stored data samples in a sequence of data groups (Williams fig. 10: LSB is data group which can mean only one bit; similarly output of 8 is another group and MSB is another group) equal in number to the number of the plurality of channels (Williams fig. 10: three shift register channels 7, 8 and 9 and 3 data groups LSB, output of 8 and MSB), each data group containing a plurality of samples from one of the plurality of channels; decoding (Williams fig. 10, 15: fig. 15 replaces elements 13 to 16 of fig. 10 and element 17 in fig. 15 is decoding since an output is being derived when a table is looked up based on the input) the data samples within the sequence of the data groups; and outputting the decoded data samples of the plurality of data groups from the plurality of channels (Williams fig. 10, 15: 17 is outputting the decoded data samples of the plurality of data groups from the plurality of channels)

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al US pat no. 5,448,592 in view of Linsky.

14. As per claims 20 to 22, Williams shows the elements of claims 17, 18 and 32 respectively. What Williams does not show is a satellite. Linsky shows the receiver is contained in a satellite (Linsky: col. 3, fourth full paragraph). It would have been obvious to one skilled in the art at the time of the invention to modify Williams to include satellite. One would be motivated to do so since the elements of claims 17, 18 and/or 32 would make the satellite efficient.

15. Regarding claims 23 to 25, Williams with Linsky show the elements of claims 20 to 22. Williams with Linsky further show an input bandwidth from the transmitter (inherent) is received by the receiver (Williams fig. 10 with 11) and is divided by the receiver with a channelizer (Williams: fig. 11: data division junction just after the output of element 26) into a plurality of output channels each of equal bandwidth (Williams fig. 11: $/32 \times 7$ and $/32$), one of the output channels comprising the time division multiplexed signal (Williams claim 13).

16. As per claims 26-28, it is inherent for the memory in Williams to comprise addressing memory cells of each of the at least one memory by addresses generated by a read address generator and a write address generator, the sequence of data samples being written in a data group of memory cells by addresses generated by the write address generator and the sequence of data groups individually outputted from a group of memory cells being generated by addresses generated by the read address generator. It is inherent since these are characteristic elements of a memory.

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Allowable Subject Matter

17. Claims 1-16, 30, 31, 34 and 35 are allowed.
18. Claims 18, 19, 29, 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

PK


MOHAMMAD H. GHAYOUR
PRIMARY EXAMINER